

User guide 7-day Solar Programmable Wall Switch

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Applications

The Tl073 programmable wall switch can be used in a single-switch or 3-way installation with the following types of lighting:

Incandescent

• Halogen

• Low-voltage halogen with transformer

Fluorescent

The TI073 switch cannot be used with a load of less than 40 W or more than 500 W.

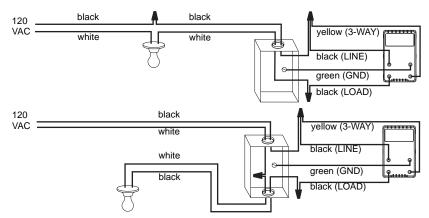
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Installation

- Cut power at the circuit breaker to avoid electric shock.
- Remove the existing switch. (For a 3-way installation, identify and label the wire connected to the "common" screw.)
- Install the new switch (see the appropriate section below).
- Apply power at the circuit breaker.

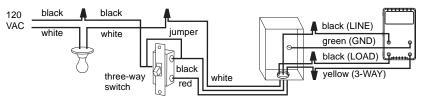
WARNING: Disconnect power to the switch when replacing a light bulb (see section 4).

SINGLE-SWITCH INSTALLATION



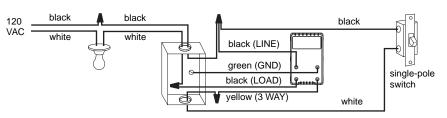
Connect the LINE and 3-WAY wires to the line (120 V) wire and LOAD wire to the load. Connect the GND wire to a ground screw inside the electrical box.

EXISTING 3-WAY INSTALLATION



Connect the LOAD wire on the TI073 to the "common" wire, which you identified when removing the old switch. Connect the GND wire to a ground screw inside the electrical box. Connect the LINE and 3-WAY wires to the two remaining wires. At the other 3-way switch, connect the jumper wire between the "common" screw and the screw where the LINE wire of the TI073 is connected.

NEW 3-WAY INSTALLATION



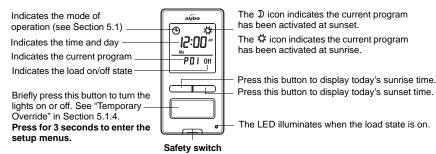
Quick Start-up

Set the time and date before using the switch for the first time.

The Tl073 will turn the lights on at sunset and turn them off at 11:00 pm by default. If these settings are appropriate for you, you only need to set the time and date (see shaded zone in the menu flowchart sheet). If the switch's sunset time does not correspond to the actual sunset time, see sections 5.3.3 and 5.3.4.

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Operation



Before replacing a light bulb, pull out to disconnect power to the switch. This prevents, while the bulb is out, any possible short circuit which will damage the switch. Push back in after the light bulb is replaced.

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Setup Menus



Press the main button for 3 seconds to enter the setup menus. Refer to the menu flowchart sheet on how to navigate the menus.

5.1 Mode Menu

Use the Mode menu to select one of the three modes of operation (see sections 5.1.1 to 5.1.3).

5.1.1 Manual Mode 🖖

In Manual mode, the TI073 operates like a regular switch. To turn the lights on or off, briefly press the main button. The 🥖 icon appears when the switch is in Manual mode.



5.1.2 Automatic Mode

In Automatic mode, the TI073 turns the lights on or off according to the set programs (see Section 5.4). The (b) icon as well as the current program number are displayed.



5.1.3 Random Mode

In Random mode, the TI073 has no specific times to turn the lights on or off. This mode is designed to give the impression the house is occupied during your absence. It is similar to the Automatic mode except there is no fixed program. The programs are automatically set to different times by the TI073 every day. The n icon appears when the switch is in Random mode.



The first "On" program occurs at sunset. Each "On" program lasts between 1 hour and 1 hour and 30 minutes; each "Off" program lasts between 15 and 30 minutes. The last "Off" program occurs between 10:30 pm and midnight.

5.1.4 Temporary Override

When the TI073 is in Automatic or Random mode, you can press the main button at any time to override the default state for the current program. The lights will turn off if they are on and vice versa. The new state icon (On or Off) flashes to indicate that the state is temporary. The new state is maintained until you press the main button again or till the next "On" or "Off" program.

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5.2 Time Menu

The time display flashes on the screen when the time has not yet been set or after a 4-hour power outage. Use the Time menu to select the time format (12-hour or 24-hour) and to set the clock and date.

NOTE: The date is used to determine the sunset and sunrise times.

5.3 Configuration Menu (Conf)

Use the Configuration menu to set the following parameters (see sections 5.3.1 to 5.3.4).

5.3.1 Backlight mode (SCRN)

The screen is lit at high intensity for 8 seconds when you press any button. The rest of the time, depending on the backlight mode selected, the screen behaves as follows:

Scrn Off: The screen is not lit.

Scrn On HI: The screen is lit at high intensity.

Scrn On LO: The screen is lit at low intensity (default mode).

5.3.2 Automatic Daylight Savings Time Changeover (DLS)

When automatic daylight savings time changeover is on (DLS On), the Tl073 changes to daylight savings time (summer time) at 2:00 am on the second Sunday of March and changes back to normal time (winter time) at 2:00 am on the first Sunday of November. This function is enabled (DLS On) by default.

5.3.3 Latitude and Longitude Coordinates (LAT and LONG)

The coordinates are used to turn the lights on at sunset and off at sunrise. The latitude is set to +45 and longitude to -75 by default. These settings provide approximate sunset and sunrise times for most North American cities. To obtain your city's coordinates (or those of a nearby city), see the coordinates table. You can also obtain this information at www.aubetech.com/timer or with a Global Positioning System (GPS) device. The accuracy of the sunset and sunrise times depends on the accuracy of the coordinates you enter for your city.

NOTE: Enter a negative value for a south latitude or a west longitude.

5.3.4 Correction Factor (ADJ)

If your city's time zone is based on political or economic boundaries instead of its coordinates, your lights might switch on or off too early or too late with respect to sunrise and sunset. In this case, apply a correction factor (+1 or -1 hour; refer to addendum). Otherwise, leave it at 0 (default value).

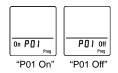
5.4 Program Menu (*Prog*)

Use the Program menu to set the programs; i.e. the times you want the lights to turn On or Off when the switch is in Automatic mode. To set a program, proceed as follows:

- Select a program number (see section 5.4.1)
- Set the day(s) of the program (see section 5.4.2)
- Set the program start time (see section 5.4.3)

5.4.1 Selecting a program number

You can set up to 21 "On" programs ("P01 On" to "P21 On") and 21 "Off" programs ("P01 Off" to "P21 Off"). Select an "On" program to set when to turn the lights on. Select an "Off" program to set when to turn the lights off.



5.4.2 Setting the day(s) of the program

After selecting a program, set the day(s) of the program. You can select a specific day, all 7 days or "none". Choose "none" for any unused program.

5.4.3 Setting the program start time

After setting the day(s) of the program, set its start time. You can select either a specific time, the sunset time or the sunrise time:

- To select a specific time:
 - (1) Advance to the hour setting and select the hour.
 - (2) Advance to the minutes setting and select the minutes.

- To select sunset or sunrise time:
 - (1) Advance to the hour setting and select the sunset time or sunrise time. (When you scroll, the sunset time ⊅ and sunrise time ☆ appear between 11 pm and 12 am.)
 - (2) To enter an offset (from -70 to +70 minutes in 10-minute increments) between the sunset or sunrise time and the program start time, advance to the minutes setting and change the minutes.
 - EXAMPLE: If the sunset time is 6:13 pm and you change the minutes to display 6:43 pm, you have entered a delay of 30 minutes. If, later in the year, the sunset time is 4:01 pm, the program will start at 4:31 pm.
 - NOTE: When you enter an offset,
 Appears along with
 or
 when you display the sunset or sunrise time. To remove the offset, display the sunset or sunrise time and change the minutes until
 disappears.

5.4.4 Examples

Example 1: The lights turn on at sunset and off at 11:00 pm every day (default setting).

Program	Days	Time	Program	Days	Time
P01 On	All 7 days	sunset	P01 Off	All 7 days	11:00 pm
P02 On to P07 On	None	_	P02 Off to P07 Off	None	1

Example 2: The lights turn on at sunset and off at sunrise every day.

Program	Days	Time	Program	Days	Time
P01 On	All 7 days	sunset	P01 Off	All 7 days	sunrise
P02 On to P07 On	None	_	P02 Off to P07 Off	None	_

Example 3: The lights turn on at 8:00 pm every day and turn off at 10:00 pm every day except on Saturday night when they turn off at 1:00 am.

Program	Days	Time	Program	Days	Time
P01 On	All 7 days	8:00 pm	P01 Off	Sunday (Su)	10:00 pm
P02 On	None	_	P02 Off	Monday (Mo)	10:00 pm
P03 On	None	_	P03 Off	Tuesday (Tu)	10:00 pm
P04 On	None	_	P04 Off	Wednesday (We)	10:00 pm
P05 On	None		P05 Off	Thursday (Th)	10:00 pm
P06 On	None	_	P06 Off	Friday (Fr)	10:00 pm
P07 On	None	1	P07 Off	Sunday (Su)	1:00 am

Be careful about overlapping!

For example, if you set "P01 Off" at 10:00 pm for all 7 days and set "P02 Off" to 11:00 pm for Saturday, on Saturday, the lights will turn off at 10:00 pm, not 11:00 pm, since "P01 Off" is set to an earlier time than "P02 Off".



Reset to Default Settings

To return the switch to its default settings, simultaneously press both main and left buttons and hold. The software version will appear for 5 seconds. **RST** will appear for the next 5 seconds. Release the buttons when all segments appear on the screen. The switch is now reset (see default settings in the menu flowchart).





Keypad Lock ≜

When the keypad is locked, the icon appears on the screen and the only change permitted is the changing of the state. For example, if the lights are off, they will turn on when you press the main button. However, in Automatic mode, the default state for the current program will be overridden until the next program starts. If you press the main button again before the start of the next program, the lights return to their initial state. To lock or unlock the keypad, press the buttons in the following order:



NOTE: You must perform the whole procedure in an interval of 2 seconds. If the procedure was not properly performed, wait another 2 seconds before retrying.



Troubleshooting

The screen is blank.	A light bulb is burned out. The safety switch is pulled out (see section 4).		
The display is faded or irregular.	The load is less than 40 W. The ambient temperature is either below or above the switch's operating temperature.		
The metal plate is hot.	This is normal with high loads (maximum of 500 W).		
The sunset or sunrise time is inaccurate.	The date or time is wrong (see section 5.2). The longitude or latitude is wrong (see section 5.3.3). The correction factor is wrong (see section 5.3.4). You have entered an offset (see section 5.4.3).		



Specifications

Supply: 120 VAC, 60 Hz Minimum load: 40 watts Maximum load: 500 watts

Operating temperature range: -15 $^{\circ}$ C to 50 $^{\circ}$ C (5 $^{\circ}$ F to 122 $^{\circ}$ F) Storage temperature range: -40 $^{\circ}$ C to 60 $^{\circ}$ C (-40 $^{\circ}$ F to 140 $^{\circ}$ F)

Power outage: The screen is blank. Only the time must be set if the outage lasts more than 4 hours; all other settings and programs are permanently saved

Latitude range: from -65° to +65°

Solar table precision: +/- 11 min. (within ±60° latitude)

Certification: UL (c UL us)



Warranty

AUBE warrants this product, excluding battery, to be free from defects in the work-manship or materials, under normal use and service, for a period of three (3) years from the date of purchase by the consumer. If at any time during the warranty period the product is determined to be defective or malfunctions, AUBE shall repair or replace it (at AUBE's option).

If the product is defective,

- return it, with a bill of sale or other dated proof of purchase, to the place from which you purchased it, or
- (ii) contact AUBE. AUBE will make the determination whether the product should be returned, or whether a replacement product can be sent to you. This warranty does not cover removal or reinstallation costs. This warranty shall

nns warranty strain not apply if it is shown by AUBE that the defect or malfunction was caused by damage which occurred while the product was in the possession of a consumer. AUBE's sole responsibility shall be to repair or replace the product within the terms stated above. AUBE SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE OF ANY KIND, INCLUDING ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING, DIRECTLY OR INDIRECTLY, FROM ANY BREACH OF ANY WARRANTY, EXPRESS OR IMPLIED, OR ANY OTHER FAILURE OF THIS PRODUCT. Some provinces, states or regions do not allow the exclusion or limitation of incidental or consequential damages, so this limitation may not apply to you.

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